ABSTRACT OF THE DISCLOSURE

Provided are antisense oligonucleotides directed against the *raf-1* gene, Ha-ras gene and HER-2 gene, components of a signal transduction pathway involving oncogenes and their normal counterparts and leading to the phenotype of cellular radioresistance. Administration of these antisense oligonucleotides is shown to reverse the radioresistance phenotype in cells overexpressing HER-2 or a mutant form of Ha-*ras*. Methods and compositions for reversing radiation resistance among other conditions involving these genes are disclosed.